

POWER SECTION

Model No: AT475568.3

Revised: 9/22/2020

Rotor Specifications	
	inches
Overall Length	229.50
Contour Length	223.00
Major Diameter	2.916
Eccentricity	0.207
Head diameter	3.125
Thread Form	2.375 HEF Modified
Weight	333 lbs
Material	17-4 PH ¹

Stator Specifications	
	inches
Overall Length	242.50
Tube OD	4.75
Tube ID	3.75
Rubber Cutback Top/End	8.00 / 8.00
Weight	506 lbs
Number of Stages	8.3
Tube Material	4140/4142 Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.488	0.014	0.027	0.041	0.060	0.074
.5 OS	2.498	0.004	0.017	0.030	0.050	0.063
1.0 OS	2.509	-0.007	0.006	0.019	0.039	0.052
1.5 OS	2.524	-0.022	-0.009	0.004	0.023	0.036
2.0 OS	2.541	-0.039	-0.026	-0.014	0.005	0.018
2.5 OS	2.560	-0.058	-0.046	-0.033	-0.014	-0.002

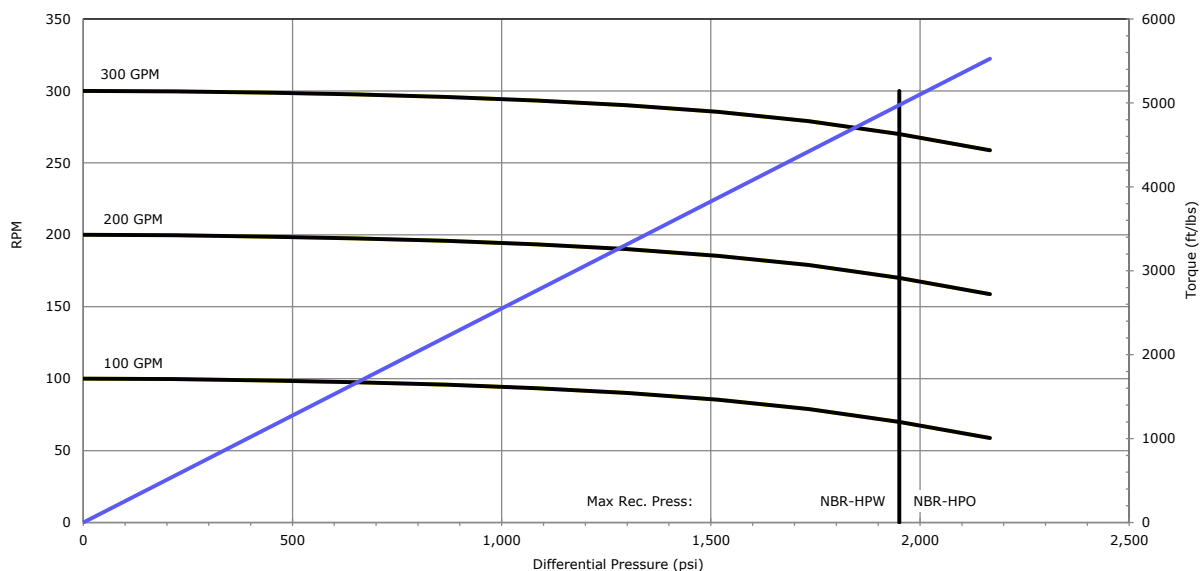
NBR-HPO (in)		Fits (+ Compression / - Loose)				
Size	Minor ²	75 °F	125 °F	175 °F	250 °F	300 °F ³
.5 US						
STD	2.488	0.014	0.027	0.041	0.060	0.074
.5 OS	2.498	0.004	0.017	0.030	0.050	0.063
1.0 OS	2.509	-0.007	0.006	0.019	0.039	0.052
1.5 OS	2.524	-0.022	-0.009	0.004	0.023	0.036
2.0 OS	2.541	-0.039	-0.026	-0.014	0.005	0.018
2.5 OS	2.560	-0.058	-0.046	-0.033	-0.014	-0.002

Performance Specifications	
Flow Range (gpm)	100 - 300
Speed Range (rpm)	100 - 300
Torque Slope (ft-lb/psi)	2.55
Rotation (rev/gal)	1.000
Off Bottom Pressure (psi)	100

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (psi)	1960	1960
Stall Diff Press (psi)	3080	3080
Max Torque (ft-lb)	4980	4980
Stall Torque (ft-lb)	7840	7840

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 75°F ³ BHCT Exceeding 320°F will void warranty for NBR-HPW/HPO.

Performance curves are based on new rotor and stator dimensions and for reference only. Actual performance may vary depending on fit and drilling conditions. The stall torque may exceed that specified for the connected components. Operating over the recommended limits may result in damage to the power section and connected components. Please visit www.AbacoDrilling.com for the latest specification revisions.

LOCATIONS

US: Headquarters 713 Northpark Central Dr., #400 Houston, TX 77073 - Tel: (281) 869-0700 - Fax: (281) 869-0701
 US: Sales & Distribution 11308 West Interstate 20 East, Odessa, TX 79765 - Tel: (432) 248-1814
 CANADA: Stator Manufacturing 6303-39th Street Leduc, Alberta T9E 0Z3 Canada - Tel: (780) 986-8947 - Fax: (780) 986-8842
 DUBAI UAE: Stator Manufacturing Oilfields Supply Center B#57, Jebel Ali, Dubai UAE, P.O. Box 19909 - Tel: 971-4-870-8600

POWER SECTION - METRIC

Model No: AT475568.3

Revised: 9/22/2020

Rotor Specifications	
	mm
Overall Length	5829.3
Contour Length	5664.2
Major Diameter	74.07
Eccentricity	5.26
Head diameter	79.38
Thread Form	2.375 HEF Modified
Weight	151 kg
Material	17-4 PH ¹

Stator Specifications	
	mm
Overall Length	6159.5
Tube OD	120.7
Tube ID	95.3
Rubber Cutback Top/End	203.0 / 203.0
Weight	230 kg
Number of Stages	8.3
Tube Material	4140/4142 Seamless Alloy Steel
Rubber Options	NBR-HPW & NBR-HPO

NBR-HPW (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	63.20	0.36	0.96	1.26	1.57	1.87
.5 OS	63.45	0.10	0.70	1.00	1.30	1.60
1.0 OS	63.73	-0.18	0.42	0.72	1.01	1.31
1.5 OS	64.11	-0.56	0.03	0.32	0.62	0.91
2.0 OS	64.54	-0.99	-0.41	-0.12	0.17	0.46
2.5 OS	65.02	-1.47	-0.90	-0.62	-0.33	-0.05

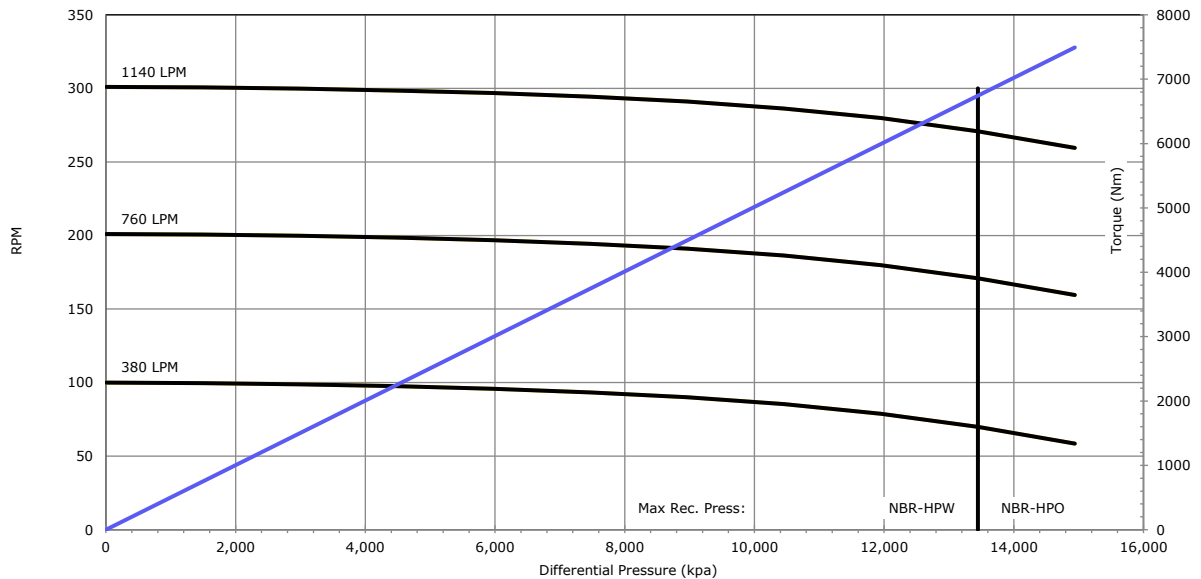
NBR-HPO (mm)		Fits (+ Compression / - Loose)				
Size	Minor ²	25 °C	75 °C	100 °C	125 °C	150 °C ³
.5 US						
STD	63.20	0.36	0.96	1.26	1.57	1.87
.5 OS	63.45	0.10	0.70	1.00	1.30	1.60
1.0 OS	63.73	-0.18	0.42	0.72	1.01	1.31
1.5 OS	64.11	-0.56	0.03	0.32	0.62	0.91
2.0 OS	64.54	-0.99	-0.41	-0.12	0.17	0.46
2.5 OS	65.02	-1.47	-0.90	-0.62	-0.33	-0.05

Performance Specifications	
Flow Range (lpm)	380 - 1140
Speed Range (rpm)	100 - 300
Torque Slope (Nm/kpa)	0.50
Rotation (rev/Liter)	0.2642
Off Bottom Pressure (kpa)	710

Performance Details		
	NBR-HPW	NBR-HPO
Max Diff Press (kpa)	13500	13500
Stall Diff Press (kpa)	21200	21200
Max Torque (Nm)	6800	6800
Stall Torque (Nm)	10700	10700

■ (NBR-HPW/HPO)

■ Torque



¹ Coating options of chrome or tungsten carbide are available ² Vector Gauge Readings at Room Temp 25°C ³ BHCT Exceeding 160°C will void warranty for NBR-HPW/HPO.

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